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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/404,313      | 09/24/1999  | TATSUHIKO AMAGAI     | Q055935             | 8283             |

7590 11/16/2004

SUGHRUE MION ZINN MACPEAK & SEAS  
2100 PENNSYLVANIA AVE NW  
WASHINGTON, DC 20037

EXAMINER

HARPER, KEVIN C

ART UNIT PAPER NUMBER

2666

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/404,313

Applicant(s)

AMAGAI ET AL..

Examiner

Kevin C. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-24, 27-31 and 34 is/are allowed.
- 6) ☒ Claim(s) 14, 15, 25, 26, 32 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 23, 2004 has been entered.

***Response to Arguments***

Applicant's arguments filed September 23, 2004 have been fully considered but they are not persuasive. Applicant argued that all newly amended claims include limitations previously held as allowable; however, some claims appear to be duplicates of previously rejected claims (i.e. claims 14 and 15 contain only the limitations of canceled claims 1 and 2, respectively).

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 14-15, 25-26 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama et al. (US 5,303,344) in view of Albal et al. (US 4,821,265) and Stoner et al. (US 6,052,383).

1. Regarding claims 14-15, 25-26 and 32-33, Yokoyama discloses a packet processing apparatus (Figure 8) for converting packet data through several layers (abstract, lines 10-21). The apparatus comprises a shared memory (item 30) for storing in a same memory space part of each of the packet data accessed by the layer 2 and layer 3 processing (Figure 10; col. 6, line 61

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through col. 7, line 2). However, the apparatus does not disclose a packet memory for storing the entire packet. Albal discloses a packet memory (Figures 1 and 2, item 19) for storing an entire packet at a communication interface in order to hold packets not ready for transmission from the interface (items 60, 62, 84 and 86; col. 7, lines 61-64). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a packet memory in the invention of Yokoyama. Further, Yokoyama in view of Albal does not disclose that the layer 2 and layer 3 processing processors access the shared memory through separate buses. Stoner discloses separate component buses (Figure 1, items 9, 11, 13 and 15) in order to give dedicated access between the components (col. 4, lines 11-14 and lines 43-54). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have the processors access the memory through different buses in the invention of Yokoyama in view of Albal. Further regarding claim 15, 26 and 33, the shared memory (Figure 8, item 30) has multiple ports and layer 2 and 3 processing is performed according to the OSI model (col. 5, lines 11-18).

2. Regarding claim 10, a processor at a layer higher than 3 is connected to the packet processors (Figure 1, item 70; Figure 3).

### ***Allowable Subject Matter***

3. Claims 16-24, 27-31 and 34 are allowed.

### ***Conclusion***

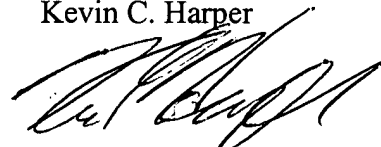
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:30 AM to 8:00 PM ET.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 571-272-3174. The centralized fax number for the Patent Office is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only (applications must be associated with a customer number). For more information about the PAIR system, see [pair.uspto.gov](http://pair.uspto.gov). Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin C. Harper

A handwritten signature in black ink, appearing to read 'Kevin C. Harper', is written over the printed name.

November 13, 2004